

CLAIMS

1. A variable delay line comprising:

5       a hybrid coupler (12) having an input terminal (22) for being supplied with an input signal, first and second output terminals (14, 16) for outputting first and second output signals, respectively, which are 90° out of phase with each other, and an isolation terminal (24) for outputting a reflected signal based on said first and second output signals as a third output signal; and

10      first and second reactance parts (18, 20) connected respectively to said first and second output terminals (14, 16) and having substantially same reactances;

15      wherein said first and second reactance parts (18, 20) have first and second variable-reactance devices, respectively, having substantially same reactances.

2. A variable delay line according to claim 1, wherein said first and second reactance parts (18, 20) comprise respective series-connected circuits of first and second capacitors (38, 40) having substantially same capacitances, first and second variable-capacitance devices (26, 42) as said first and second variable-reactance devices, and a first resonant circuit (30, 46) and a second resonant circuit (32, 48).

25      3. A variable delay line according to claim 2, wherein

series-connected circuits of third and fourth capacitors (54, 56) and third and fourth variable-capacitance devices (58, 60) as variable-reactance devices are connected in parallel to said first resonant circuit (30, 46) and said second resonant circuit (32, 48).

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4. A variable delay line according to claim 2 or 3, wherein a plurality of ceramic layers are stacked to form an integral structural body (78), said integral structural body (78) having a ceramic layer (66) with said hybrid coupler (12) disposed thereon, a ceramic layer (68) with said first resonant circuit (30, 46) and said second resonant circuit (32, 48) disposed thereon, and a ceramic layer (70) with at least said first and second capacitors (38, 40) disposed thereon.